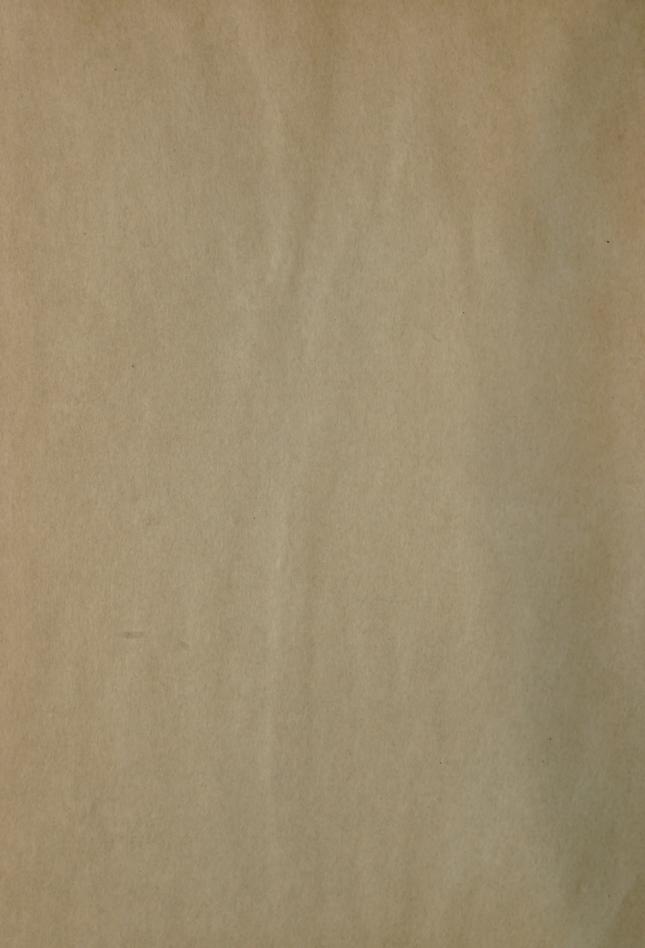
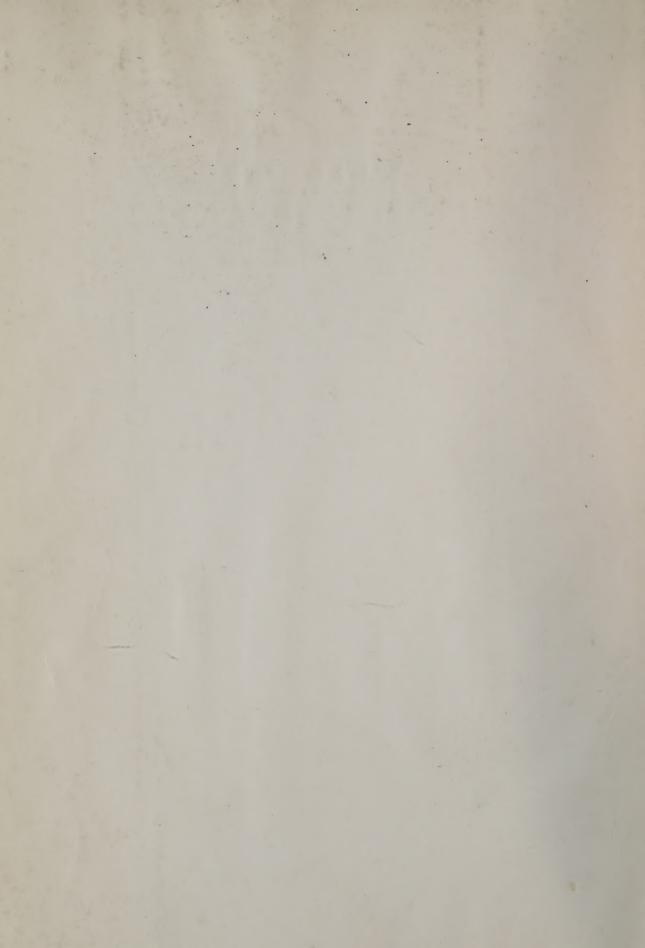


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# VOCAL FUNDAMENTALS

FOR SPEECH AND SONG

A Brief Treatise on the

VOCAL MUSCULAR
SYSTEM 4046,399

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By
ALBERT E. RUFF)

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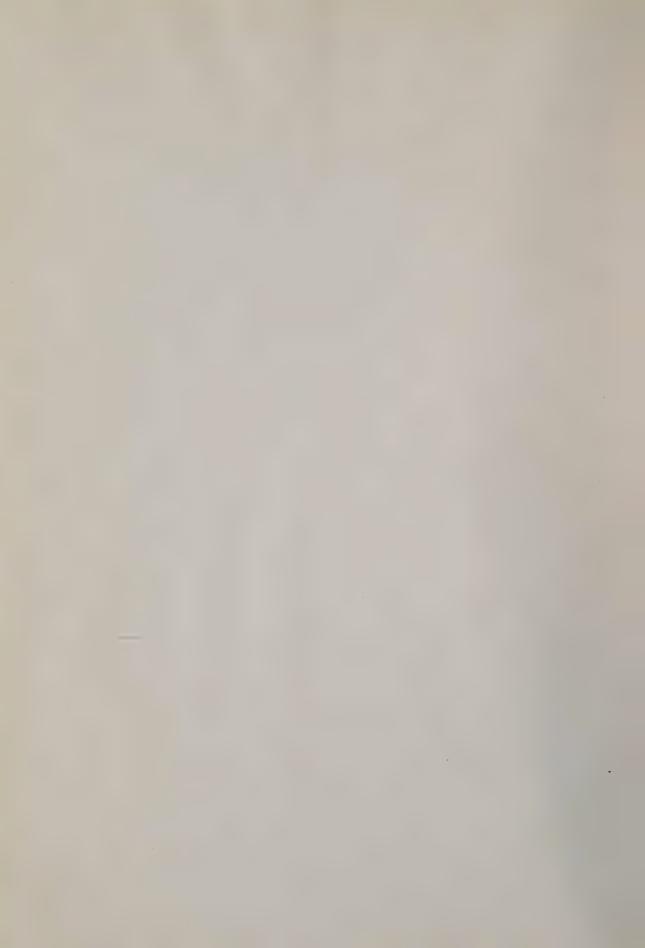
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ALBERT E. RUFF

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## PREFACE

It has been my aim to make this work as plain and in as condensed a manner as possible, refraining from making any extensive or superfluous allusions to matters not having an absolute bearing on our subject. Such things as color of tone, reflection of tone, laws of acoustics, etc., etc., and many other scientific researches having a bearing on voice culture may be found in the excellently illustrated works of Helmholtz, Widman, Sieber, Curtiss, Mackenzie, Miller and others.

Altho the scientific names for the muscles immediately connected with voice production are advisable, I have tried to explain them in as simple a manner as possible, hoping thereby to help students to understand the causes of the many disturbances resulting from a misplacement of these muscles, so they may be able to reason for themselves, and come to definite conclusions, which, without such knowledge, could only be guesswork.

These exercises are intended for mature voices. I would not advise a girl under sixteen, or a boy under eighteen, to commence a serious study of the art of voice culture.

Ofbert & Ruff



## INTRODUCTION

They say that a voice teacher is born, not made, but the born teacher often arrives at his goal only after many years of trials, tribulations, and experiences. That is, many of the theories which he advanced in his earlier career, seemed, in after years, rather insufficient.

After forty years of experience with all kinds of voices, both for speech and song, in which my principle researches were always to find the reason for voice breakdown, either through loss, or partial loss of voice, after it had, to all appearances, been cultivated by reputable voice teachers, and had been received and acknowledged by public and press as perfect, I here give for publication, exercises with which I have brought back to professional careers, many, who had despaired of ever being able to repeat any of their former successes.

These exercises mean *nothing* if not backed up by a knowledge of their value, together with a means of knowing how to use them, and when to apply the one or the other, as the individual case may require.

There have come down to us from various noted

teachers of the past, certain sayings, which, if adhered to, were supposed to make the singer. Among these are the following: "He who knows how to breathe, knows how to sing." Again, "Diction is the great essential." Also, that the great Porpora, when assailed by his wonderfully talented pupil Caffarelli, for keeping him seven years on a few exercises, and nothing more, said to him, "Go into the world, you are now the greatest singer of the day."

All these sayings have a bearing on voice cultivation, but in my opinion that of Porpora has the greatest value, though I believe seven years must have been an exaggeration, and that other works were also used, for with these few exercises he could only have made the *instrument*, in other words, set the vocal muscular system.

My exercises are based on Porpora's theory, which I believe to be the *true* fundamental principle of voice cultivation.

The muscles (voice) of no two persons can be set in precisely the same manner, as the inward construction of throat and resonant chambers differ in each person as much as the facial characteristics differ. It is obvious, therefore, that most tones made by *imitation*, must to

some extent derange the natural setting of the muscular system.

This derangement is mostly caused by the various manners of speech, and voice use, acquired principally by imitating others in early life.

This work, therefore, is intended as a rudimentary method for the building up of the voice from its foundation to its highest degree of cultivation as far as the voice itself is concerned, that is, the *instrument*, and is in no way calculated to develop musical phrasing, diction, rhythm, etc. This part of musical education can be found in the many splendid works on singing.

With uncultivated voices, in their natural state, these exercises may be applied to advantage in their regular form, but with voices injured through abuse, or a wrong method, the teacher should use his judgment, selecting those for research, construction, and counteraction, as in many cases, voices must be taken to pieces as it were, and a new foundation laid, on which to build a new structure.

It is the *foundation* which I here intend to lay, and I can give every assurance, through my over forty years of working on this line, that, if the foundation is properly laid, or in other words, the muscular system properly

set, that a structure can be built on it, which will stand the test of singing the greatest works without fatigue, or danger, and that a voice thus set will last until old age.

He who once was received and acknowledged by the public as a great singer, and who in the prime of life, and with good health, had to retire because of loss of voice, never knew how to sing.

It is my intention to put into printed form, exercises I have perfected during my long experience as a voice teacher, combined with a short analysis of the instrument (voice) itself. The idea is to teach the student the why and wherefore, and also to explain the individual value of the several exercises on the vocal apparatus, (Vocal Muscular System) that he may be able to judge for himself why certain exercises are of value to some, while to others they are often detrimental.

By this I hope to make clear each exercise, its special purpose, both for the building of tone, and its effect on the muscular system controlling the vocal action, that the student may determine which exercise will relieve the latent or over-strained muscles, and which will give life to dormant ones.

These exercises have been selected as the most effective

I have used in restoring the voices of many prominent operatic and musical comedy stars, who, through overwork, demanded by their public performances, or wrong singing, had contracted ailments of the vocal apparatus, principally through a mis-placement of the *fibers* of the muscles controlling the cords, preventing their true focusing.

This work does not claim to be a *Method* for *Singing*, but is intended to lay the foundation, on which can be built *Any Method*.

THE AUTHOR.

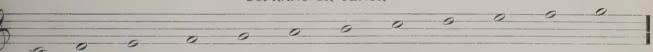


#### CHAPTER I.

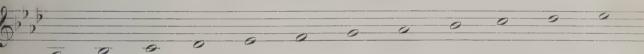
# VOCAL FUNDAMENTALS

The compass of the voice essential for cultivation in tenors and sopranos is from C to G. In baritones and contraltos from Ab to Eb.

#### SOPRANO OR TENOR



#### BASS, BARITONE & CONTRALTO



If the internal muscles which control this scale are — properly *set*, the higher notes to Bb, to which all tenors and sopranos are capable of singing, and to F or G for baritones and contraltos, may in time be safely reached.

The first step in voice culture should be the *muscular* - setting, not voice placing. This difference should be well understood at the beginning.

By muscular setting we mean the regulation of the vocal muscular system.

Page Thirteen

By voice placing, the proper reflection of tone in the resonance chamber, so that the partial, or over tones may therein be fully developed, making it possible to execute the great works of the masters with ease to the performer, and a feeling of relief to the listener. This can only be perfectly accomplished if the muscular system functions properly.

A voice is correctly set when the inner muscles of the larynx are taught to regulate the vocal cords, so that each tone will be perfectly focused on them.

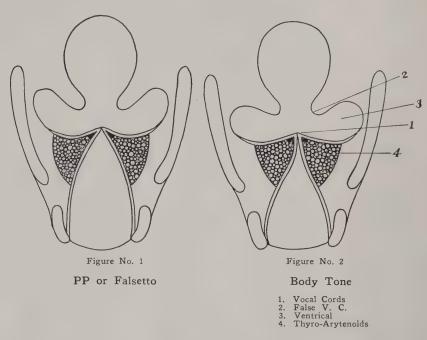
The term vocal cords is used, as they are commonly called such, and consequently better understood. Later on we will try to show them as part of a muscle.

When we realize that every sound, whether speaking, shouting, laughing, crying, as well as singing, is made with the cords (notwithstanding the fact, that a supposedly noted Paris Professor is at present trying to convince the profession that the cords have nothing to do with tone production), perhaps we may understand that an over-indulgence in any of the above sounds, if the tone is not correctly focused, may overstrain them, and the fibers become misplaced, resulting often in the nodula, partial paralysis, or a weakening of the muscles govern-

ing the cords. The *tremolo* is one of the results of this weakening, and if not checked in time, ruins the voice for professional work. We hear many times very beautiful and well-trained voices (technically) rendered valueless by the tremolo. This is caused by neglecting the proper strengthening of the fibrous continuation at the commencement of voice study.

To those afflicted with the tremolo, or showing an inclination towards this pernicious action, we would recommend the Exercises Nos. 1, 2, 3 and 4 to be practiced in the softest manner possible with an entirely relaxed throat. The cords then vibrate on their edges. This is called by some the "Falsetto." (Of this later on.) If the tremolo is very pronounced, these exercises should be kept up for quite a period. The body tone should not be used until all trace of tremolo has disappeared from the soft tone, which it should do in a few weeks. A steadiness will soon be experienced, with much relief to the throat. This relief must be maintained throughout the whole course of study, which will take place when using these developing exercises, and the same principles are adhered to. This can be accomplished, if by increasing the tone, the muscular process is taught to resist the

breath pressure thrown against it, only to the extent necessary to produce the tone required. (More of this anon.)



It is very necessary that while diminishing, the external as well as inner muscles should *relax*, and it is best to let the tone break, or stop, towards the end of the diminish, as picking it up again with the same breath, helps the fibers to be drawn into place. In fact, sort of play with the tone at that point, as long as the breath lasts.

This, I consider one of the most important points to observe, not only at the beginning of voice restoration, but throughout the entire professional life of the singer. This is: Singing on the breath.

The external muscles are those outside of the larynx, and can be manipulated by will power. They can readily be seen around the larynx. These are the muscles which should only be used as a secondary action, and only to the extent of the Breath Control. Being voluntary, they can be used at will, which is unfortunately so often overdone. This is detrimental to the vocal muscular system, for when they are pressed against the inner muscles, they interfere with the natural working of these muscles.

The action producing tone should be started from inside the larynx, and by means of the breath pressure extended outwardly, the external muscles only being used to *resist* the increase of tone, relaxing according to the diminishing tone.

This, if properly done, is the secret of retaining the voice into old age.

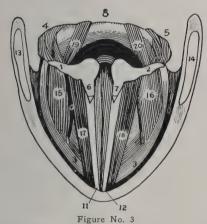


#### CHAPTER II.

## VOCAL MUSCLES

The inner muscles are those having a direct connection with the vocal cords inside the larynx, and are *involuntary muscles*, being controlled only by the tone production.

The voluntary or external muscles are those lying outside the larynx, and can be controlled at will.



INTERNAL OR INVOLUNTARY

1-2 | VOCAL ACTION 6-7 | OF ARYTENOIDS

3-3 CRICOID

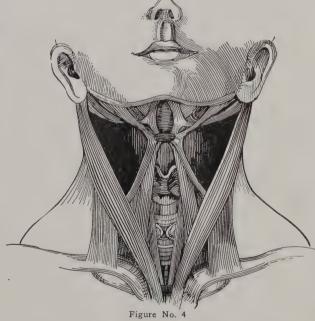
4 -5 ) POSTERIOR OR BACK 19-20 (CRICO-ARYTENOID MUSCLE

15-16 LATERAL OR SIDE CRICO-ARYTENOID MUSCLE

11-12 VOCAL CORDS

13-14 THYROID CARTILAGE

17-18 THYRO-ARYTENOID MUSCLE



EXTERNAL OR VOLUNTARY MUSCLES

Page Nineteen

The vocal cords are two ligaments lying horizontally across the wind pipe (trachea) inside the larynx, and fastened in front a little below the *Adam's Apple*, and loose at back, permitting them to open and close like a pair of scissors. Figures 5 and 6, page 27.

The vocal cords are controlled by the Thyro-Arytenoid muscle, to which their whole posterior border is attached. The cords in fact being a continuation of the Thyro-Arytenoid muscle.

This fibrous continuation has most to do with the focusing of the pitch on the cords. Each tone should have its own fibrous continuation with which to support pitch and breath resistance. See Figures 8 and 9, page 38.

The Crico-Thyroid muscle connects the lower part of the Thyroid with the upper ring (Cricoid) of the wind pipe *in front*, and is supposed to be the principle muscle used to stretch the cords for the higher notes.

The Crico-Arytenoid muscle connects the back part of the Cricoid with the Arytenoid. When the softest tone is sung, with a completely relaxed throat, this is the muscle which holds the cords in position while singing pianissimo (falsetto). See Figure 3, page 19.

The Lateral (side) Crico-Arytenoid muscles are

situated on each side of the Cricoid, extending upwards to the outside of the Arytenoids. See Figure 3.

These are the muscles through which the tension passes when diminishing from fortissimo to pianissimo (or falsetto) and vice versa, and play the most important part in the crescendo and diminuendo, and also in mezzo di voce singing.

The three principal cartilages are: Cricoid, Thyroid, and Arytenoid. The muscles take their names according as they are fastened to these cartilages.

The above are the principal intrinsic, or vocal muscles, and although their separate functions are here illustrated, they act, to a certain degree, in common when the voice is in a high state of cultivation.

With these muscles performing their proper functions, the voice can be trained to its highest degree of perfection, without any fear of a breakdown, and not only for today, but for a lifetime.

To facilitate the method, the several exercises are divided into groups, each group having a distinct purpose.

If they are carefully analyzed in connection with the system of the *muscular process*, a clearer knowledge of what is meant by *muscular setting* and *voice placing* may be had, and the cords will then gradually find their right focus for each tone.

By some it is contended that pitch is accomplished by a tension, or relaxation, disregarding the individual focusing of each separate tone on the cords.

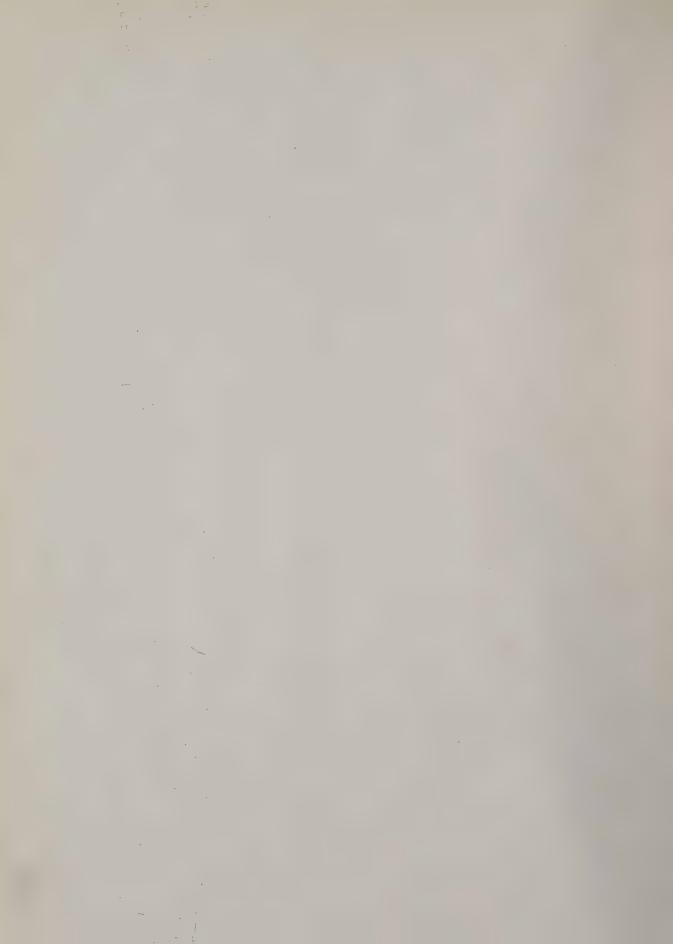
This we claim is only in part correct, and if made so can only result in forcing the muscles by compression, which ultimately results in a conglomeration of the fibers of the Thyro-Arytenoid muscle. Besides its correct focus on the cords, pitch is also determined by length, width and thickness of them, all of which ought to be considered by the teacher in developing the voice. A long thin and narrow set of cords can be trained most accurately and quicker in the high tones with the pp. Cords like these can also sometimes sing low tones well, but it is dangerous to do so, as the fibrous continuation in the forward part of the cords may be interfered with. Singers with such cords often make the grave mistake of singing high and low with equal ease, while young.

No voice possesses both high and low *naturally*. Either one or the other it must be. It should be the teacher's

first duty to find out from color (timbre) as well as pitch, what the voice is.

Pitch alone cannot determine whether it is a high or low voice, as cords like the above referred to, can easily be made to sing either way. If the voice is naturally high, the low tones on such cords are usually without much body, lacking in carrying power.

When we hear what may appear to be two kinds of voices in the same person (especially in the female) it is almost an assurance that it is the remnants of what may once have been a good voice, and most likely caused by using upper and lower voice with equal force.



#### CHAPTER III.

## THE METHOD

Proper Setting of the Vocal Muscular System

For those afflicted with one or other of the several impediments resulting from a misuse of voice, causing a loss of upper tones, a hoarseness, a scratchiness, or an inability to sing pp. with a relaxed throat, this part of our work is especially intended, though it is self-evident that it must be also the foundation for all voice production.

Only a small percentage of the pupils, singers and even teachers, have the slightest knowledge of what they are singing with. Most of them have heard of vocal cords, but there it ended. Some think they are strings standing upright, some that the arches are the cords, and most of them do not know, or care what they are, as long as they can make a sound. Even among artists of the first magnitude do we find such.

It was only after my going with one of our greatest operatic favorites to a clinic, that she said she had a clear idea of what the cords are, thereby being greatly benefited, as she could the more easily determine the why and wherefore of the several exercises on the Vocal Muscular System.

During forty years of experience, I have reconstructed, and brought back to professional usefulness many supposedly worn-out voices.

To clarify and make possible,—by further investigation and experiments in the so-called restoration,— I desire to give my conclusions, thereby hoping to reach some universally acknowledged principle.

So as to give a vivid vision of the *Vocal Muscular System*, from a practical point of view, and in as simple a manner as possible make clear its working pertaining to voice production, I will give a short description of the principle muscles controlling the vocal apparatus.

The so-called *Vocal Cords* are *not* cords, but the outer edges of the two muscles (Thyro-Arytenoid) attached in front, inside the larynx, a little below the Adam's Apple in males, relatively in the same position in the female. They extend about three-quarters of an inch backwards.

About an eighth of an inch of the outer edge of this muscle is of an elastic ligament substance, pearly white in color, and when seen with the laryngoscope, comes to an edge in phonation when in a healthy condition.

It is principally the outer part of these muscles (Thyro-Arytenoid) which is brought into phonation and form the so-called vocal cords. (Figures 8 and 9, page 38, and Figure 23, page 52, for sectional view.)

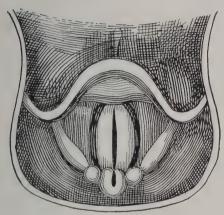


Figure No. 5

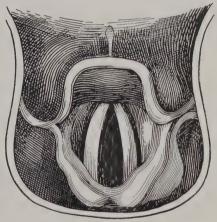


Figure No. 6

VOCAL CORDS IN PHONATION

VOCAL CORDS IN REPOSE WHILE BREATHING AS SEEN WITH LARGYNGOSCOPE

This being so, it stands to reason, that the Thyro-Arytenoids controlling the actions of the so-called cords, must be a part of them. It is this controlling and restoring of the fibrous continuation from these muscles into the cords, that has been my greatest study, throughout

Page Twenty-seven

these many years of research, experiment and practical application, and has brought me to conclusions hitherto little thought of, or at any rate not fully explained from a practical vocal point of view.

These muscles are said to be the most delicate fibrous muscles in the body and for their size possess the greatest strength and flexibility.

Perhaps no muscles in the body have to stand such strain as the Thyro-Arytenoids. They are brought into play at birth as soon as the child commences to cry, and throughout his life, every time he speaks, laughs, cries, sings, or makes any other sound from his throat, he is using the *Thyro-Arytenoid*.

Therefore, it should be the study of the manipulation of these muscles to which the medical fraternity, as well as the voice teacher, should mostly turn his thoughts, as most troubles, including tremolo, loss of high tones, hard tones, scratchy tones, partial paralysis and nodula are caused by a disorder of these muscles. Many times throat specialists are deceived, as often the cords look normal when seen with the laryngoscope, while underneath, the fibers of the Thyro-Arytenoid may be out of order. Only an expert voice specialist can detect this.

To reach the high tones as easily as the lower ones, should be the aim of every singer. That this can be accomplished, I have demonstrated over and over again.

The singer ought to be able to sing at any time of the day. If after singing an opera or concert, any hoarseness or stiffness should be perceptible, then harm has been done to the *fibrous continuation* of the Thyro-Arytenoids, deranging their natural extension into the so-called cords, often creating the beginning of the breakdown, nodula, loss of high tones, etc.

If these muscles are trained to act properly, and the act of relaxation is understood and *practiced*, there will be no tightening of the throat, and no external bulging of the muscles of the neck will be apparent, and not only can soft and loud tones be made with ease, but the going from the one to the other can be accomplished with the same elasticity as the stretching of a pure rubber band.

In this respect, the cords resemble the violin. The open string on the violin gives the lowest tone. By pressing the fingers on the string the tone is higher, the higher up the finger, the higher the tone, for the string is thereby shortened.

So it is with the voice. The focus or breath pressure locates itself on the back part, or end of the cords, for the lower tones. By this, the whole length of the cords are in phonation, consequently, as on the violin string, its lowest tone. As we ascend the scale, the breath pressure or focus moves forward, shortening the vibratory part of the cords, thereby raising the pitch.

Pitch is determined by the number of vibrations. The laws of acoustics teach us, that a certain tension to a given length gives a certain pitch. If this is applied to the cords, we find that the whole length of the cords vibrating will give the lowest tone. As the tones ascend they must shorten, which is done by the focus gradually moving forward, thereby shortening the vibratory action. This is the principal action in pitch, and not as many claim, done by a loosening or tightening of the cords, for pitch has the same number of vibrations, whether sung by a thousand dollar a night singer, or a ten dollar one. It is the quality which is perfected in the resonance chambers which puts the valuation on the singer. The more perfectly the vocal Muscular System operates, the more readily the vibrations in the cavities of the head will respond. This is Voice Placing.

When the internal muscles can function with this elasticity, the singer will be able to sing many hours daily without fatigue or danger to voice.

We often hear that a singer has lost his top notes, requiring to use lower transpositions, often contenting himself with his medium, sometimes beginning to cultivate his lower tones. This is a grave mistake. He should have corrected the conglomerated condition of the Thyro-Arytenoid muscle, whose fibers had been forced forward, interfering with the *true* focusing of the cords, by carrying the weight of the lower action at the same time with the upper, which usually results in a weariness, requiring more and more of an effort to reach his upper voice.

While the voice is young and healthy the muscles are flexible, being capable, sometimes for quite a period, of singing these high tones with apparent ease. If, however, the relaxation and correct setting of the fibrous process is neglected, it is only a question of time before it will become noticeable that the person is not singing with the same ease, often resulting in a *break down* and usually when the singer has reached the pinnacle of success.

This occurs when the fibers are pressed beyond their

natural position, towards the stationary point on the Thyroid-Arytenoid muscle. (See chapter on Nodula, page 49.)

As an example of what can be accomplished by adhering to the working of the Vocal Muscular System, I will here give my conclusions, reached after teaching along these lines for nearly two years, one of America's most popular artists, giving her two and three lessons daily (Sundays and holidays included), for that length of time.

The conclusions at which I arrived after two years teaching, were verified in the progress attained, that this artist had not for at least five years before I was called to her assistance, been singing independently with her vocal cords. Most of her singing was made, according to my theory, by a compression of the Thyro-Arytenoid from beneath the cords upward, ultimately causing a conglomeration, and a hardening of said muscle. By this action she lost her high notes, could not sing any soft tones, the whole voice becoming scratchy as the vocal cords could not act naturally. See Figure 10.

In all my long experience with all kinds of voices, never have I met with one whose Thyro-Arytenoid fibers were so misplaced. That was my conclusion, and working on that theory alone, giving her only my special exercises, (some invented for her particular case,) never with songs, I succeeded in accomplishing what many said was the impossible. Public and press have acknowledged this up to 1923, my last lesson with her.

During the period I worked with her voice, she never had to discontinue her professional work, sang forty-seven performances with the Metropolitan Opera Company, season 1921-22, about one hundred and seventeen concert engagements throughout the United States and Canada, the public almost everywhere proclaiming it a great *come back*.

This, of course, is only to demonstrate how valuable a knowledge of the *Vocal Muscular System* has been to me.

I contend that the pitch of the tone depends on the point or place on the cords on which it is focused, that each tone should have its independent setting on the cords, and that any deviation from this will, sooner or later, derange the fibers of the *Thyro-Arytenoid Muscle*.

If the muscular action of the lower or medium tones is forced up beyond its natural focus, a counter action

is made from the opposite position, where the cords are fastened, often causing an outward bulging of the cords about one-quarter from the front, which presses the fibers together. This we claim is the principal cause of the nodula. (See article on the nodula). The prevailing demand of public and modern composers for loud singing and big climaxes is responsible for many misplaced fibers.

If the singer does not adhere to the dictates of nature (the correct working of the Thyro-Arytenoids), soon the fibrous conglomeration will occur, making it more difficult as time goes on, to reach the high notes. Sometimes this conglomeration occurs throughout the entire muscle, causing partial paralysis. This hardening, or benumbing prevents the vocal cords from focusing correctly. In many such cases we are sure the cords themselves, vibrate only as a secondary action. (See Figure 10, Page 39.)

#### CHAPTER IV.

#### VOICE DEVELOPMENT

By development of tone, we mean the practical application of such exercises as will give the vocal muscles elasticity, enabling them to expand and relax, according to the amount of breath control used. This, when done with a relaxed throat, makes the muscles rubber like. In proportion as these muscles can be made flexible, so the tone can be increased and diminished. According to how far the tone can be made loud with the primary or inner muscles only, and with the same breath bring the tone back to its softest point, so we determine the development of the voice.

The external muscles should be used to resist or sustain the action of the inner muscles (never as a primary action), relaxing them as the tone diminishes. If after swelling on a tone, it breaks in diminishing, then the fibrous continuation from the Thyro-Arytenoid into the cords proper is interfered with, either through a hardening of the fibers, or a lack of proper relaxation of the external muscles.

Without this flexible control of the inner or invol-

untary muscular action, the Bell Canto (catch penny term) cannot be made. All the Bell Canto stands for, is beautiful or smooth singing. Therefore to sing Bell Canto, practice stretching and relaxing the intrinsic muscles. When the intrinsic muscles are made flexible, Bell Canto takes care of itself, if proper exercises conducive to correct breath control and diction are carried out. Diction should be built on the tone, not the tone on diction.

The development of tone does not mean how loud one can sing, but how far one can swell on a tone, and still keep it pure and liquid, then diminish to its softest point, without fatigue or break. One should feel that strength or loudness of tone is limited only by the breath-capacity. Never use the external muscles for this purpose.

To illustrate this from a muscular point of view, I here give my conclusion taken from instructions I received many years since from that great throat specialist and laryngoscopist, Dr. Carl Ludwig Merkel of Leipzig, with whom I had the great privilege of studying during the years 1876 and 1877. That Dr. Merkel had the right idea of the working of these muscles, I doubt not, but as he makes no mention of the derange-

ment of the fibrous continuation, I doubt if he ever thought of the entire value, or resourcefulness of the Thyro-Arytenoid Muscle.

I consider this muscle of infinitely greater importance than all the rest, as it is primarily a part, or rather a continuation of the so-called cords themselves, receiving the first vibrations, or pressure from the tone given, having to withstand and regulate the entire vocal system.

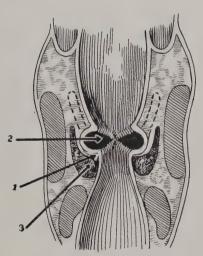


Figure No. 7

#### VOCAL CORDS IN REPOSE

- 1. VOCAL CORDS
- 2. VENTRICALS
  3. THYRO-ARYTENOID MUSCLE

Here we see the various shapes and positions the Thyro-Arytenoid Muscles are capable of taking, and on

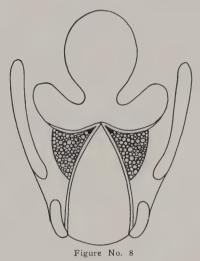


Figure No. 9

## VOCAL CORDS IN PLACE WHEN SINGING PPP OR FALSETTO

## CORDS IN PLACE WHEN SINGING WITH FULL OR BODY TONE.

- 1. VOCAL CORDS
- 2. FALSE VOCAL CORDS
  3. VENTRICALS
  4. THYRO-ARYTENOID

which I base my theories, discovered from my vocal instructions and observations.

In Figure 7 we see the larynx opened from the back.

In Figure 8 the cords and Thyro-Arytenoid Muscle acting in softest voice (falsetto).

Page Thirty-eight

In Figure 9 the cords and Thyro-Arytenoid Muscle acting in full or body tone.



Figure No. 10

### VOCAL CORDS WITH THYRO-ARYTENOID FORCED UP FROM BELOW

In Figure 10 the cords and Thyro-Arytenoid Muscle pressed or forced from below. This we claim is the cause of most so-called breakdowns, and is the result of forcing

the voice beyond its natural limit, both in pitch and power.

If this muscle is correctly trained, I claim no breakdown need ever be feared, as it is made *flexible* or *rubber- like*, and will yield to the full power of breath placed
upon it, the tone only being limited by the breath pressure.

#### PREPARATORY VOICE DEVELOPMENT

In exercise No. 5 we will find the foundation for voice development as well as Bell Canto, in that it combines the smooth with the expansion. To get the full benefit of this exercise, only one key should be practiced at a time, repeating the several parts, taking about five minutes to finish each key. First hum (see Chapter VII) the part pp, holding top note as long as one has breath enough to finish it, glissando down. Next sing lower note with broad Ah pp, reflect to Aw, then to O, on which swell without changing position of tongue or mouth. Not a very loud tone can be made thus at first, and should not be tried. Be contented at first by opening the tone thus,

holding the body tone in about the same strength as long as one thinks one has breath enough to diminish and finish the exercise.

Each developing exercise should be followed by a counteracting one. This relieves any strain which may have been put on the muscles.

This developing and counteracting constitutes a combination which is safe and sure, as any strain on the muscles by developing is immediately counteracted, bringing relief to any overstraining caused by the developing exercise, keeping the muscles rubber-like.

The development of voice is the development of muscular control, and muscular control of the throat is, as in any other part of the body, and should be studied accordingly. Never develop one tone at the expense of the rest. An athlete develops other muscles besides those principally required for his profession, first by developing them individually, then collectively. Likewise, the several vocal muscles should be cultivated separately, then collectively. Of course this can only be done through tone production, under the direction of the teacher's ear.



#### CHAPTER V.

#### DEVELOPING EXERCISE No. 12

The keystone of voice development in tenors and sopranos lies between Eb and F. In contraltos and baritones between Bb and C. If these tones can be sung with freedom, both in the crescendo and diminuendo, an opening is made whereby the development may be extended throughout the whole voice, as the muscles are brought into a combined action.

#### COMBINATION TONE

This leads us to a term employed and explained in a booklet published by the author in 1885, and since then used throughout all his teaching, in illustrating the so-called *Voce Mista* (mixed voice).

The old Italians were fully aware that the change which takes place in sopranos and tenors between D, E and F, required special treatment. They knew that if by carrying the lower tones up without making a change in the manner of singing them, force had to be used which seldom gave a pleasant tone, often resulting in disaster to the singer. Again if the upper notes were allowed to take their natural position, pp, no develop-

ment could be made, as it would then be falsetto. They knew well that there should be some way of uniting them, so they found exercises whereby some of the quality and strength of the lower tone could be united with the quality and weakness of the upper, thereby forming a new, and beautiful upper register, especially in the tenor voice, which they called Voce Mista, mixed voice. As I could not conceive of a tone becoming mixed, especially when it was the most beautiful tone in the tenor voice, and that I was convinced it was made principally through a muscular combination, I gave it the name of Combination Tone.

If the tenor sings his upper tones ppp with relaxed throat, the vocal cords will vibrate as Figure No. 22 seen with the laryngoscope, and as Figure No. 8 cross-section. The purpose of a combination tone is to be able to retain the above focus sustained by the Crico-Arytenoid, swell through the lateral Crico-Arytenoid into the Thyro-Arytenoid to the cords proper, as Figure 9, they retaining the same focus (Figure 22), throughout this process. By this we have the combination of the vocal muscles supporting the tone, which, if relaxation of the external muscles is observed, becomes more beautiful and brilliant, and can

be increased in volume to the capacity of the breath pressure, to the extent as these muscles are made flexible or rubber-like. When this has been accomplished, no sore throat, tired or lame muscles, or the nodula need be feared, the singer can sing fearlessly, not only for today, but for a lifetime.

Explaining the progress of tone through these muscles may seem imaginary, and to some perhaps ridiculous, but as by our research we are convinced that the foundation of tone is muscular, our explanation seems rational.

After having used Exercise 12 in various ways for over forty years, I have compiled it into a complete series which, if carefully studied, and faithfully practiced, never fails to give good results. The nine different ways this exercise is given, have each their distinct purpose.

#### EXPLANATION OF EXERCISE No. 12

The first way (hum) is to set the tone on its true spot on the cords, which it will do if sung pp with relaxed throat.



Figure No. 11

The second way (a-humee) to practice, going from hum into mi, very softly. Repeat top tone pp, mi, mi, mi, mi before sliding down to ah.



The third way (a-humee-you) to develop into the body tone, not too loud, but without any hesitation, dim, slide down.



The fourth way (ahumeeyouo) into still bigger tone, by letting chin drop slightly, diminish, slide down to ah.



The fifth way, commencing on higher note (a o e i)

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to give firmness to upper tone, also to make flexible the arches, by a change of vowels, diminish each vowel to a fadeaway. Sing ah o, take breath, then e i Italian sound. Care must be taken not to deviate in the least from the pitch, in diminishing, then strike the next vowel forte, diminishing on each vowel, slide from i down to ah.



The sixth way is ff no diminish, to further develop the voice.



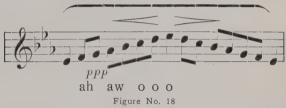
Figure No. 16

The seventh way gives still greater setting for the upper tone, which should be greatly emphasized, and very directly sung, hold and dim last upper tone, slide down to ah.



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The eighth way is intended to set each tone correctly on the cords, both for developing and coloratura work. Of course coloratura must be followed up with all kinds of exercises, but this principle of the vowels should always be maintained.



The ninth way (ah ppp) is to sing the scale ascending and descending with mouth as wide open as possible (as you would open it for a dentist to examine your back teeth) and sung with the *softest tone*. By this we sing on the edges of the cords alone, allowing each tone naturally to take its right setting. This also completely relaxes the throat.



Exercise 12 should be practiced very patiently, at first only in one key at a time, and should be followed by a counteracting, Exercise, 6 or 8.

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#### CHAPTER VI.

#### THE NODULA

Perhaps no defect in modern times has caused so much discussion among the medical profession and singers, as this very common ailment of the vocal cords.

It has become so frequent of late, that singers seem to be alarmed at the first sign of hoarseness or fatigue of the throat.

Before entering into a discussion of a means for relief, let us see if it is not possible to more definitely determine what the node is, and what has caused it. We believe it is only then, that we can arrive at an understanding, and conclusions scientifically reached, which may enlighten us, as to means for a restoration of the cords to their normalcy, without having to resort to surgical operations.

There is no doubt in our mind, that, as the node occurs on the tone producing muscles, it must have been caused by some kind of tone production, either in singing, speaking, yelling, or by some of the various sounds made, contrary to the true natural working of the Vocal Muscular System.

The nodula should not be confused with a papillona. The first is caused by an abuse of the muscular system. The other a growth, or physical disturbance, whose removal should be left to the surgeon.

As I have often heretofore mentioned, the correct pitch depends on, and is regulated by the position on which the tone is *focused* on the cords, and not by a stretching alone, as some contend. The stretching muscle may play an important part in pitch, but I believe it is only as a resisting power, in retaining the focus attained by soft singing.

Each tone ought to have its own particular position on the cords.



Figure No. 20

#### VOCAL CORDS WHEN SINGING WITH LOW VOICE

Thus I find that the lower tones are focused on the back, or end of the cords, which open slightly at this

point. As we ascend the scale, this opening moves forward with the tone, so that we find the middles tones focused thus:

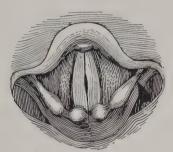


Figure No. 21

VOCAL CORDS WHEN SINGING IN MIDDLE VOICE

and the upper tones thus:

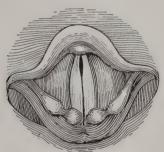
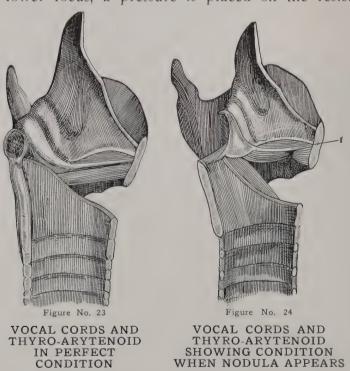


Figure No. 22

VOCAL CORDS WHEN SINGING IN HIGH VOICE

I believe the function of the stretching muscles is to retain this position of the cords, and when the tone is thus made, and in swelling, the Thyro-Arytenoid working naturally (Figure No. 9), that long periods of hard singing may be indulged in, without fear, or danger of a misplacement of the *fibrous continuation*.

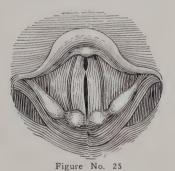
When, however, the cords do not focus on these several openings according to the pitch naturally belonging to them, a misplacement occurs. For instance, if we sing the higher tones with the cords in the same position as the lower focus, a pressure is placed on the resisting



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muscles (Thyro-Arytenoid) which presses or forces the fibers of these muscles forward. I believe it to be this forward pressing of the fibers, which causes a bulging out.

At this point the cords may be said to be at rest, not vibrating with the remainder of the cords.



VOCAL CORDS IN PHONATION SHOWING

By a repeated forward pressing of the fibers, this point of rest gradually hardens. At first this is only noticeable by a small particle of phlegm remaining on the cords. If the cords were to vibrate at this point, it must discharge the phlegm, and if it does not, this is the point of rest, or rather the point on the cords where the conglomeration of the fibers occurs, which if not rectified, gradually hardens. This pressure on the fibers, caus-

ing the cords to bulge out, ultimately results in the so-called *Node*. See Figures 25 and 26.

The removal of this bulge by an operation, at best only partially removes the Node, the fibers still remaining conglomerated. The resumption of singing with the same method as before, must continue to force the fibers forward, thus interfering with the true working of the muscular system, and once more creating a node.

Then again, the operation undoubtedly leaves a scar, which also must interfere with the flexibility of the cords proper.

This may not be technically a correct explanation, but it is on this theory I have worked for these many years, and by my several exercises have never failed to see the node disappear, and thus, by a healthy manipulation of the several muscles, restored the fibrous continuation to its former natural working, so that the singer could resume his profession without fear.

With the knowledge of what is meant by counteracting and relaxation, no more danger of voice breakdown need be feared.. This I have demonstrated by my practical work over and over again. It can only be by what has been actually accomplished that value can be put on *any* theory, and it is on this accomplishment that I make bold to now give my views, and with them, the exercises with which I have often removed the nodula, hoping thereby that they may be taken seriously, thoughtfully, and with an unbiased mind.

The first step I take in order to remove the Nodula in sopranos and tenors, is to try and get above the Node, so to speak, with the softest tone.



Figure No. 26

CORDS IN REPO

# VOCAL CORDS IN REPOSE SHOWING NODULA The Nodula usually occurs about one-

The *Nodula* usually occurs about one-quarter from the front, about from D to F in the voice. It is on the singing of these tones ppp I bend my efforts.

At first this seems sometimes quite impossible, the hardened condition of the cords or fibers at this point preventing them from vibrating on their edges. Often a very thin squeak is at first heard. This should be encouraged, because by this sound we know we are on the spot, where the conglomeration of the fibers reaches the edges of the cords, preventing the extension of their vibrations beyond this point, the same as it does in the so-called falsetto, described in another part of the book. By persisting on this squeak, and if possible getting into the falsetto, gradually the cords will be made to vibrate above the *Node*, ultimately becoming a true tone, though at first very thin, and without body.



VOCAL CORDS VIBRATING ABOVE THE NODE

When this tone can be made thus, a starting point has been reached, on which to commence our research. By research I mean the investigating point of that particular case, as rarely can two voices be treated in the same manner.

I always begin with exercise No. 1 ppp. Sometimes the upper tones cannot be made softly, in which case some other exercise should be tried, until one is found on which the upper tones can be sung ppp. By no means use any force on these tones, until the fibers begin to yield, which it may fairly be taken for granted, results when the upper tones can be sung ppp.

After a few preliminary exercises take Exercise No. 12. If this one can be sung with ease, in its various ways, we are beginning to get the better of the *Node*.

At first only the first way of this exercise should be practiced.

Hum the lower Eb very softly, with completely relaxed throat, then reflect, in other words, strike the Eb above directly, which at first is sometimes impossible without using too much pressure. With patience and perseverance this can be accomplished. By no means slide up to the top notes, as there is danger thereby, of crowding the fibers. When this tone can be held softly with the hum, and throat relaxed, slide down to octave below, pulling as much of the upper quality of tone as possible down to lower tone. By this sliding down process, we counteract the fibrous conglomeration, grad-

ually bringing the fibers back to normalcy. In doing this, sometimes a perceptible click may be noticed. This should be encouraged, as it indicates a regulating of the focusing of the edges of the cords, also a shifting of the fibers. The tone below that point should be made as softly as possible.

When this can be sung fairly well with the hum, the second way can be practiced, which is by singing the lower tone with a broad ah pp, reflecting the upper tone with the hum, mi, mi, mi. Hold the last mi as long as the breath lasts, at the same time relaxing the throat. If the tone should stop, pick it up again with the same breath. Repeat this several times, parting the lips slightly into ee.

After a few days commence to increase the upper tone from the hum into the open or body tone. Do this by going from the hum into mee, then into u, very decidedly pronounce the y in you, so that it sounds eeyou, letting the tone vibrate well in the head. When the u can be sung with body tone, swell and diminish. If the tone can be swelled and diminished to its softest point, the system is working rightly, and the *Node* will grad-

ually disappear. Practice this also a few days before opening it to its furthest expansion.

Now continue the u into o, by dropping the chin slightly. Diminish on o, then slide (glissando) down to ah, continuing the other ways of Exercise 12, which are to be practiced according to judgment. As the *Node* is disappearing, use more power on *top* note. Lower note always pp.

Nodes occasionally occur on children's vocal cords. I had occasion to work on a nine-year-old girl who had pronounced *Nodula*. Her mother said, when the child was four years old, she had diphtheria, which was so painful, that she kept screeching almost continuously for several weeks.

Again, I can here see how this affected the fibers of the Thyro-Arytenoid, forcing them into a conglomerated condition, which, not being counteracted, remained pressed, resulting in the *Node*.

This child had a perfect musical ear (which is very essential), so that I could use my exercises according to my judgment. In a comparatively short time I had control of the system, and the *Node* gradually disappeared.



#### CHAPTER VII.

#### HUMMING, FALSETTO, AND YODEL

The understanding of these three greatly misunderstood actions, I consider of the greatest importance in muscular setting, which as I have repeatedly mentioned, should be the first step in voice building.

When correctly executed, these three *actions* are of the same mechanism, therefore I refer to them collectively in the same chapter.

The hum, as well as the falsetto, should be made with relaxed throat on the edges of the cords.

If the tone is increased without changing this action, it is false, or falsetto.

To swell from the soft into the body tone, the cords must get the support of their fibrous continuation, in other words the Thyro-Arytenoid Muscle.

Swelling on the falsetto or hum without changing the action, not only gives a very empty sound, but is dangerous to the cords themselves, as, not being supported by the adjoining muscles, the cords become in a way detached, which creates a different defect than the conglomeration of the fibers of the Thyro-Arytenoid. A case of this kind has also come under my care. This artist, who was a great Wagnerian singer, required entirely different exercises than the artist referred to in a previous chapter. We were just beginning to get a hold on the voice, when, unfortunately, the contract requiring me to travel with the aforesaid artist, cut short my work with the Wagnerian singer, consequently, we were unable to determine just to what degree the voice could be restored.

There is a great difference between a voice impaired through a fibrous conglomeration, and one with cords detached, so to speak, from the Thyro-Arytenoid. The cords of the Wagnerian singer, seen with the laryngo-scope, were thin and straight. To the eye almost perfect.

It would have been of great interest, and perhaps of some value to science, had I not had to leave the case in that critical condition, for I believe a solution to her problem could have been found.

By a detachment of the cords is meant their not being able to connect from their edges (pp) into the Thyro-Aryenoid, which sustains the ff or body-tone. This is usually caused by paresis or nervous disorder. The difference between the action of those two voices was so apparent, and the method employed for each so entirely different, that it would seem impossible to comprehend their being taught by the same teacher.

I mention these two cases here, to illustrate the necessity of teaching each pupil individually, with exercises conducive to their special requirements.

In each and every case I begin by employing the soft hum. It sometimes is difficult, often impossible to do this softly, but by persisting, the edges of the cords will gradually get into a thin condition, and will therefore phonate more easily.

Some find it easier to hum with the teeth apart, some with them touching. That is of no vital importance if we keep the tongue and its adjoining muscles *relaxed*. I believe the most satisfactory way to hum softly is to let the teeth *just part*, the tip of the tongue loose, never *pressed* against the lower teeth.

Many are afraid that humming will produce a nasal sound. Loud humming may do so, but this soft hum is intended to act only on the cords proper, leaving the resonant chamber free and open, consequently no nasal sound can result. It is when drawing on the nose muscles,

thereby narrowing the air passages, forcing the tone into the nose, that the tone becomes nasal, very unmusical and disagreeable, and very detrimental to the muscular system.

The falsetto is on the thinnest part of the cords, along its edges. See Figure No. 1.) The pitch, according to where it is focused on them. In tenors, the focus is about one-third from the front for D, gradually moving forward as the tone is made higher until it is in this position for the highest tones. (Figure 22.) All this is made on the edge of the cords, and can only be of benefit to the singer if made ppp. If the cords are retained in this position, and a loud tone made, it is a toot, or the high tone of a yodel.

#### THE YODEL

The yodel is made by a rapid change from the body tone into the so-called falsetto, caused by a flip from the body tone (Thyro-Arytenoid) into the edges of the cords (falsetto).

That this is extremely detrimental to the vocal muscular system is so apparent that no true artist uses it, and I do not believe any real *yodler* ever became a great singer, notwithstanding the fact that the great yodlers live in that open and healthy country, *The Tyrol*, and are mostly strong, vigorous men and women, and possessing great natural musical gifts.

#### Boy's Voice

We condemn the cultivation of a boy's voice before it has *changed* and *settled*. The boy's throat being of the same size and construction as the female, is capable of the same cultivation. This unfortunately is often done, and while the voice remains a boy's, it is very beautiful, but if trained, and used for concert work, the Thyro-Arytenoid becomes strengthened, and the fibers so set, that when the voice changes into a man's voice (sometimes in the period of a few weeks), this muscle having been stunted through premature development, is incapable of correct readjustment, consequently unfit for a professional career. Of the many phenomenal boy sopranos who have fascinated the public during the past forty years, where are they to be found today?

#### CHAPTER VIII.

#### BREATHING

Throughout this work, little mention has been made of breathing. As I said in a previous chapter, perhaps next to ignoring altogether this very important branch of voice culture, is the mistake of talking too much about it.

I do not wish to give the impression that no attention whatever should be given to breathing, but must emphasize the fact that it should be taught separately instead of in connection with voice study.

A few fundamental exercises, practiced morning and night, will, in a short time, cause the breathing muscles to work automatically. If the proper vocal exercises are regularly and faithfully practiced, the ultimate result will be the complete co-operation of the whole vocal system, giving life and vitality to both body and voice until old age.

Thinking that perhaps a lecture I gave on "Breathing," August 11, 1924, in Los Angeles, at the Southern Branch of the University of California, might throw some light on the subject, I have hereto added this lecture.

It is a universally acknowledged fact that in ancient times our ancestors made great studies in breathing, by developing the *voluntary* muscular action of the diaphragm and abdomen.

The Greeks and Romans knew well the value of breath control for hygiene, and physical perfection.

The perfection of their development in this line is handed down to us in the many illustrations of their wonderful sculpture and paintings. They were able to attain a bodily perfection superior to our present generation, principally through their muscular development of the chest and abdomen.

In the Middle Ages, about Queen Elizabeth's time, the natural development of the muscles around the chest suffered greatly, through their manner of dress. Our modern schools of physical culture, calisthenics and classic dancing, together with the modern dress of women, are doing great things towards restoring the natural breathing of the ancients. The outdoor sports, such as golf, tennis, etc., in which both male and female participate, are also great factors.

#### BREATHING

or

#### BELLOWS OF THE VOICE

The breath in the lungs would be just as useless for producing tone, as the wind in a bellows would be for blowing on a fire, were not some motive power placed to compress the wind, and force it through the nozzle. As common reasoning will convince us that the greater force of wind will be produced by placing the motive power on the handle at the *back* part of the bellows, so the greatest power of breath will be forced against the vocal cords when the pressure is brought from below, that is, from the lower part of the lungs.

The breathing of an athlete differs from that of a singer in that the athlete holds his breath with contracted abdominal muscle, while the singer requires the flexible development of this muscle to control his breath, so that in the delivering of it, any desired force may be used.

The bellows, having stiff sides, requires only to have the motive power placed on the back, but the chest, being elastic, and having many muscular combinations, may be so worked that only a part of this muscular force may be employed (and in many of our modern singers, only a part is employed), which in some cases seems to give satisfaction; but when we reflect that all the muscular combinations may be so trained as to work in harmony, and with one force, reason ought to teach us that this combination of forces is the motive power which we ought to study. On the cultivation of this power depends to a great extent the saving of the voice in after years.

In the use of this power we relieve the muscular action of the throat. When we know how to place the tone, we shall be able to throw its overtones into the resonant chambers at our will, thereby removing all strain from the throat, which will then work naturally.

This natural working of the muscular action of throat will cure all throat troubles caused by abuse of the voice, which will then be so strengthened, that the voice will last as long as life lasts, as in the full development of the lungs lies the foundation of health.

The abdominal muscle ought to control all the actions of the rib muscles (both intrinsic and extrinsic costal). As the mind can more readily bring this muscle under control than any other, and with its development the whole diaphragm can be brought under the singer's will, this is the muscle which above all others ought to be primarily cultivated.

With a little patience, a man can in a short time control it; but there is perhaps not one woman in a thousand who realizes she has such a muscle, and consequently it is very difficult to convince some of them of its existence. Dress is responsible for this, especially that of our great, great grandmothers. Staccato notes and short rapid inspirations are effected through the voluntary (which afterwards becomes involuntary) control of this muscle.

The abdominal muscle is to the lungs, what power placed on the handle of a bellows would be to the bellows; only the abdominal muscle, being elastic, can control the diaphragm, so that part or all of its muscular action can be employed at the will of the singer. When he has such control, and can place his tones, leaving the throat relaxed, so that the only tension the vocal muscles will receive, will be that which they receive from breath pressure, he can then perhaps understand what is meant by the common saying which has come down to us from the old masters: "Singing on the top of the breath."

Though the abdominal muscle, being so elastic, can be moved in many ways, it must not be understood that this action alone is all there is in breathing; but by first gaining control of it, the singer will afterwards be enabled to so bring it into play that it can control the entire action of the costal muscles. For this reason we strongly advise pupils to develop the abdominal muscle *first*.

The abdominal muscle extends from the diaphragm to the lower trunk of the body. This muscle connects with various fibers of the rib muscles in such a manner that by getting full control of it first from the middle of the front, the extension can be gradually practiced till we can control the whole *abdominal* wall, moving it in part or as a whole in any direction.

The first part of this movement, that is, the bulging out and receding of the abdomen, is called *abdominal breathing*.

When it controls the fibers of the costal or rib muscles, it is *deep breathing*, as we thereby can inhale the breath to the deepest cells of the lungs.

The combined action of these muscles when so developed will control the singer's breath, so that when his voice is set, he will not think of contracting his throat, (thereby causing throat trouble), but on the contrary, he will find that his throat will be growing stronger, and the more he sings, the easier it will become for him to sing.

The abdominal movement of the Egyptian women dancers is an example of the capabilities of this muscle, and surely ought to put at rest the question whether or not woman can utilize this muscle for breathing purposes. By abdominal control it is possible to breathe with one lung at a time.

We must never sing to the end of our breath, or till our power is exhausted. Both from an artistic and physical point of view, it is wrong to use the breath thus.

We ought always to have a reserve breath, which should be used only on extraordinary occasions.

When we have the abdominal muscle under perfect control, we can take a breath almost imperceptibly, even in the middle of a phrase, should it become necessary.

Breath should be inhaled as if we took a ball of thread in one gasp, and then exhaled, as if delivering the thread in tone. No sound should be heard while inhaling.

It was the boast and pride of many of the great artists of former years, that it was difficult for anyone to tell when they were taking breath.

That the breath control is of the greatest benefit for rapid execution goes without saying.

Breathing naturally in singing does not mean using

your breath as most civilized people do in daily life; for perhaps a very small percentage of civilized mankind really breathe correctly naturally.

One of the most convincing proofs that we do not now breathe naturally correctly is given us by the experiments made by Dr. Mays of Philadelphia, on the breathing of the native Indian girls of the Lincoln Institution, and can be found recorded in the Therapeutic Gazette of May 16, 1887. Dr. Mays says: "In all, I examined the movements of eighty-two chests, and in each case took an abdominal and costal tracing. The girls were partly pure, and partly mixed with white blood, and their ages ranged from between ten and twenty years. Thus there were thirty-three full-blooded Indians, five one-fouth, thirty-five one-half, and two were three-fourths white. Seventy-five showed a decided abdominal type of breathing, three a costal type, and three in which both were about even. Those who showed a costal type or a divergence from the abdominal type came from the more civilized tribes, like the Mohawks and Chippewas, and were either one-half or three-fourths white; while in no single instance did a full-blooded Indian girl possess this type of breathing. From these observations it obviously follows that, so far as the Indian is concerned, the abdominal is the original type of respiration in both male and female, and that the costal type in the civilized female is developed through the constricting influence of dress about the abdomen."

The vanities and customs of our forefathers are to a great extent responsible for the downfall of correct natural breathing.

Perhaps most of the ailments of modern times may be traced to the former slavery of women to fashion.

Many have renounced this mode of dress, for that of the so-called dress reform, but the only true reform can now be established by the breath reform.

If one will look over our Sunday papers, he will find both among the advertisements and editorials, many theories advocating devices in the shape of calisthenics, physical culture, etc.; also schools of all descriptions advancing their special methods for the development of weak muscles, and broken down constitutions, all coming to the one centerpoint, and that is the development of the breathing apparatus.

In fact, we may say that we are living in an age of fads in this respect.

Many elaborate physical culture institutions are fitted up for the comfort of people of wealth who can afford to spend several hours each day, and who reap great benefit from these exercises, and who will continue to improve as long as they keep taking them.

As soon as they cease, and go back to their old routine, they find many times the old tired feeling coming over them again, they begin to fret, because they cannot leave their business, or cannot afford the expense, and soon find themselves in as bad a condition as before. The laborious exercises strengthened their muscles and temporarily gave them health and strength, but the *automatic* working of the abdominal muscle, without which, only half of the work could be done, was neglected.

If we could fully develop the automatic control of the abdominal muscle, keeping the chest high and stationary, we would have fewer consumptives, less doctors and a much happier nation. A person may live for several years with only one lung, but he can never be as healthy and vigorous as one having full use of both. This fact is reasonable not only for the singer, but also for the person who makes no pretensions to singing.

To breathe scientifically naturally, we must learn the

functions of the muscles which control the breath chamber. As each muscle can be brought under our will power, either separately or in connection with each other, a knowledge of this working when properly practiced will bring into life dormant muscles, and relieve the strained or overworked ones, giving rest and strength to the whole body.

In time, all these muscles will work in harmony with one another, and may then be said to be working in second nature. This will enable us to do a greater amount of work, with less effort or fatigue. Imagine binding the muscles of an athlete and expecting him to do full justice to his powers!

We may consider that we possess two actions in breathing, a *voluntary* and an *involuntary*. The voluntary is that which is effected by the mind commanding the muscles of the chest to widen and enlarge the breath chamber to its fullest capacity, and afterwards so to control its action, that any needed force may be applied to regulate the tone required.

The involuntary, as commonly understood, is that required to sustain life, and works day and night without the action of the mind. This is what we commonly under-

stand as natural breathing; that is, it has become in most cases second nature to breathe thus.

If we notice the breathing of a baby, or an animal, or the native Indians referred to by Dr. Mays, we shall see that our ordinary manner of breathing must really be the artificial, having been brought about as aforesaid by dress, etc.

When the voluntary muscular action is rightly applied, it becomes automatically scientifically natural, because we have now restored the really natural through scientific methods.

It is with considerable caution that we should accept the sayings of many of the great singers, which if taken literally may lead many a young teacher and student to harmful conclusions, and are very likely to put them on the wrong track.

One of these sayings is quoted by Lamperti in his work on "A Treatise on Singing," as having been handed down to us by Pacchiarotti, one of the very great singers of the old Italian school; it is, "He who knows how to breathe and how to pronounce, knows well how to sing." Such sayings are very likely to lead (and very often do lead) many young teachers to harping too much on

breathing and articulation to a beginner. We believe that the worst thing a teacher can do, next to not talking at all about breathing and articulation to a beginner, is talking too much about these very important accomplishments. It is the teacher's duty to watch and see that his pupil does not acquire bad habits, does not raise his shoulders, or hold his breathing muscles rigid, but should assume an easy and perfectly relaxed attitude when vocalizing.

Point out first the errors and correct them before commencing to apply scientific ways to re-establish this natural manner of breathing, and by all means teach the breathing separately from singing.

A thorough knowledge of the different diaphragmatic movements is of great benefit, as we can the more surely and quickly accomplish satisfactory results if we direct the mind to the individual working of the muscles of the diaphragm and chest.

By this method we shall soon commence to realize that the diaphragm is working the breath, not the breath the diaphragm.

What is this mysterious power, which we call breathing?

We understand it to be life.

If we had allowed those muscles to perform their own functions, that is, as they acted at our birth, and had not prevented their growth and important elastic movements by binding them with tight clothing, especially those injurious modes of dress which came into use with our ancestors about the time of Queen Elizabeth, there would not now be any need of spending so much time upon breathing. Aborigines, and animals in general, grow up as nature intended, hence their natural correct breathing.

We do not suppose the Egyptian women of Cleopatra's time had any difficulty in breathing. What a pity we have no record of their singing ability! It is also a pity that we have to be slaves to customs invented to please the eye during the middle ages.

To breathe naturally correctly, that is scientifically naturally, we must study with patience and perseverance the workings of the muscles of the diaphragm. It is only after many trials and diligent practice that we shall become conscious that there is another way to breathe, different from the one to which we have been accustomed.

#### CLAVICULAR BREATHING

Nearly all scientists and vocal teachers of note condemn with one voice the so-called clavicular breathing (that is the raising of the shoulders) as being the worst kind; for the reason that it not only does not fill the lungs to their fullest capacity, but in the raising of the shoulders, the action of the external muscles of the throat is interfered with. These muscles are connected both directly and indirectly with the larynx (inside of which are all the vital vocal muscles), therefore the raising of the shoulders prevents their free action.

More or less force and contraction of these neck muscles is caused when breathing with the shoulders, which not only interferes with tone production, but must also tire the throat and exhaust the singer. This is one of the first signs of the decay of the voice for vocal purposes.

#### RIB BREATHING

From the shoulders we pass to the side or rib breathing, (costal) which is a considerable improvement on clavicular breathing and perhaps one of the easiest forms to acquire. When combined with the swelling of the chest this breathing gives almost entire satisfaction, and for this reason is much used.

#### DEEP BREATHING

When the rib-breathing has the support of the abdominal muscle, so that it can regulate the action of the diaphragm both in front and at the sides, we can reach the lowest cells of the lungs, which when inflated with air, gives us the greatest reservoir for holding our breath; to this action, therefore, is given the name of *deep breath*ing.

As the abdomen plays such an important part in deep breathing, many are led to believe that this is what is commonly understood as abdominal breathing, hence they name it such.

#### ABDOMINAL BREATHING

As abdominal breathing is commonly believed to be only that action, which is brought about by the bulging out of the abdominal muscle in front, leaving the sides to take care of themselves, we wish to make a distinction between it and deep breathing, showing that it is not till we have the two combined, and under distinct control, that we have all the resources of breath under our command. For instance, when we breathe with the ribs alone, we feel that there is something wanting to sustain this power.

An athlete will, perhaps, tell you that this is all that is necessary, as he has by this method as much breath as he requires, and all he needs to do is to close the glottis, and thus hold his breath. The singer, however, needs to deliver this breath, and in the most delicate manner possible; and it is only when he can have the assistance of all the muscles connected with the diaphragm, that the greatest possible control can be obtained.

When we breathe with the abdominal muscle alone, we feel that fullness and power which is needed for vocalization; but after we have inhaled all the breath we can with this muscle, if we direct the mind to the ribs, and draw on them also, we find that we can fill the lungs still more. When we do this, we shall find that the abdomen after having bulged, now draws in and flattens somewhat, but still retains its tension, thus forming the greatest breath pressure. Consequently, this manner of breathing is what we believe to be the most perfect for vocal purposes.

### Compass of the Voice

(Soprano and Tenor)

Albert E. Ruff Necessary to regulate the Vocal Muscular System

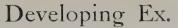


### Preparatory or Investigating Exercises

To be practiced with the softest Voice and completely relaxed Throat.

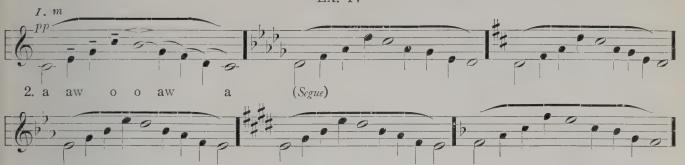


Page Eighty-four



(Preparetory)

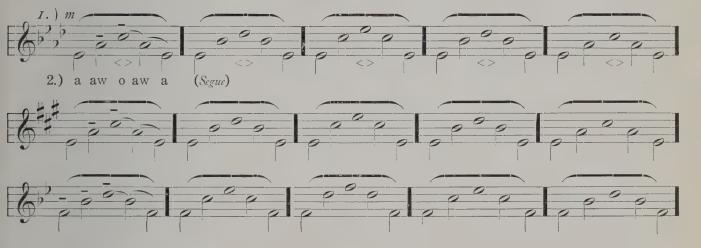
EX. IV



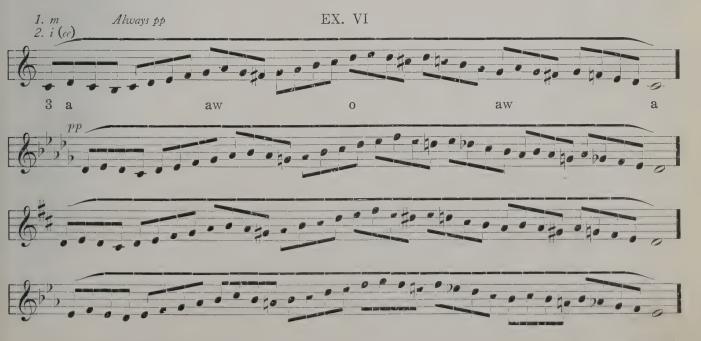
### Developing Ex.

(Soprano and Tenor)

EX. V



# Counteracting Ex.



# Counteracting



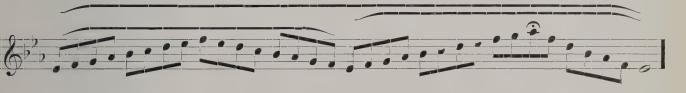
# Stretching Ex.



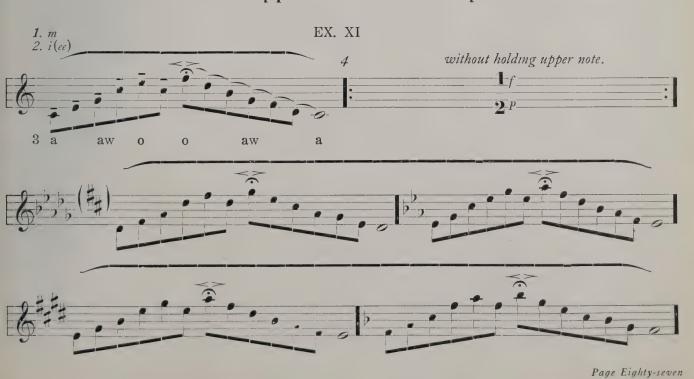
# Developing Upper Voice



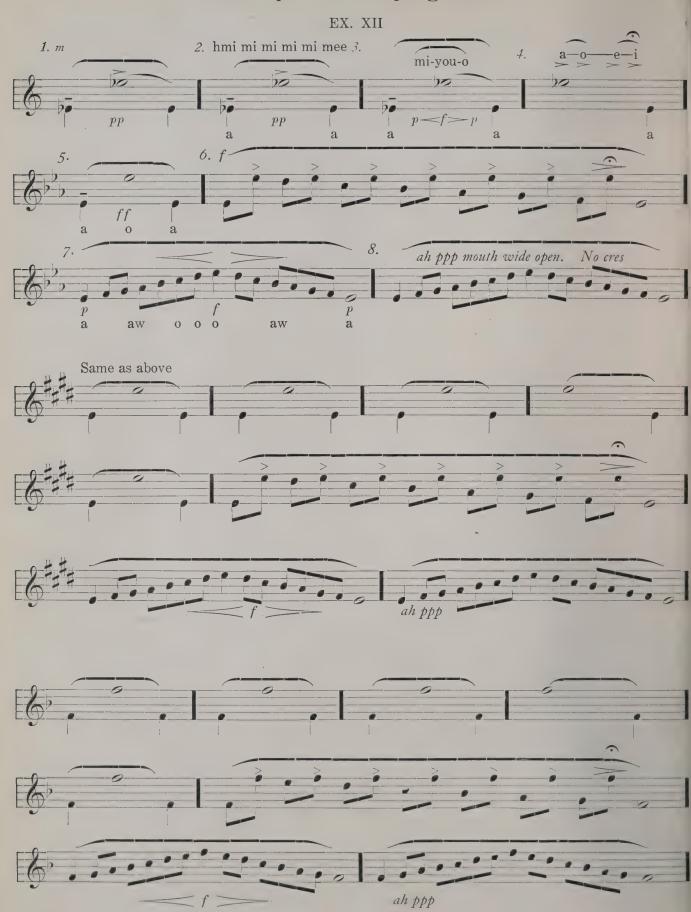




# Further Upper Voice Development



# Principal Developing Ex.



# Counteracting



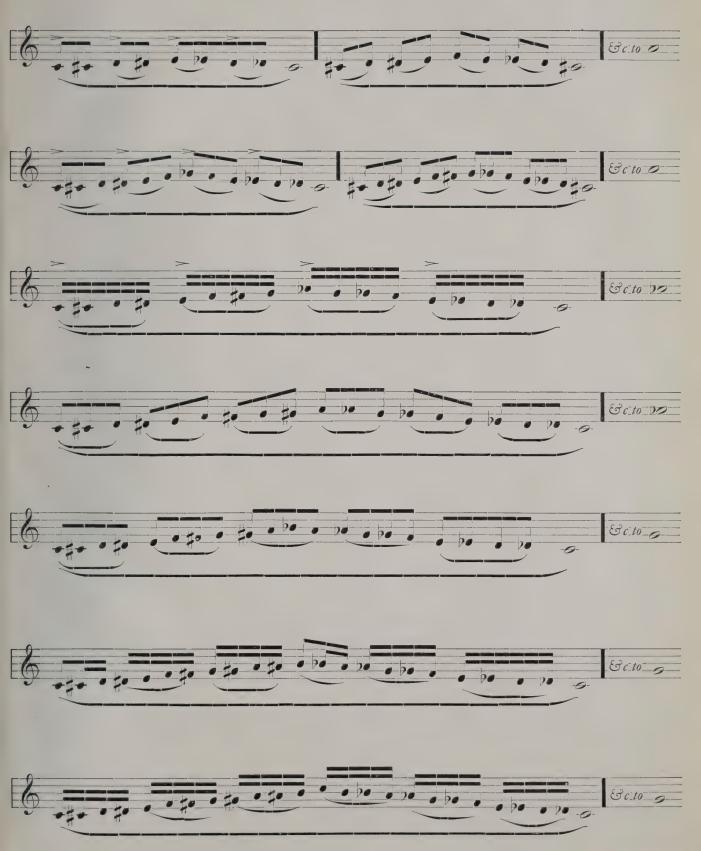
# Independent Lip Action Should be Exagerated

EX. XIV EX. XV Rit.

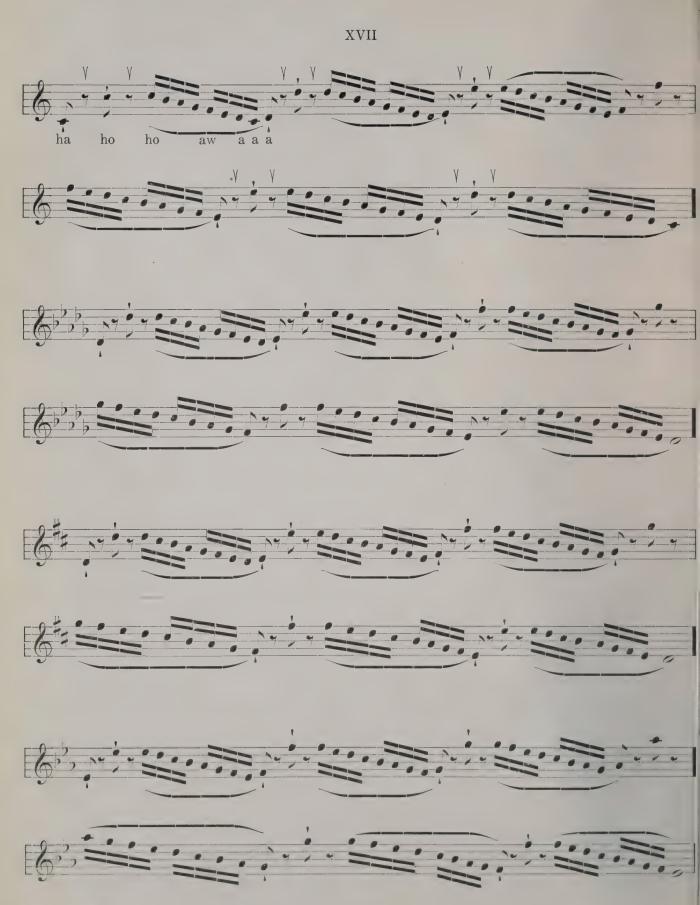
Page Ninety

# Chromatic (Preparation)

EX. XVI

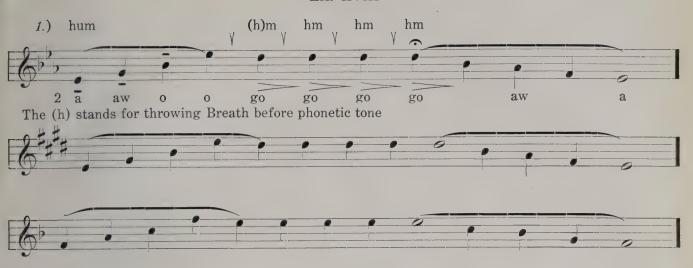


### For Independent Attack and Flexibility

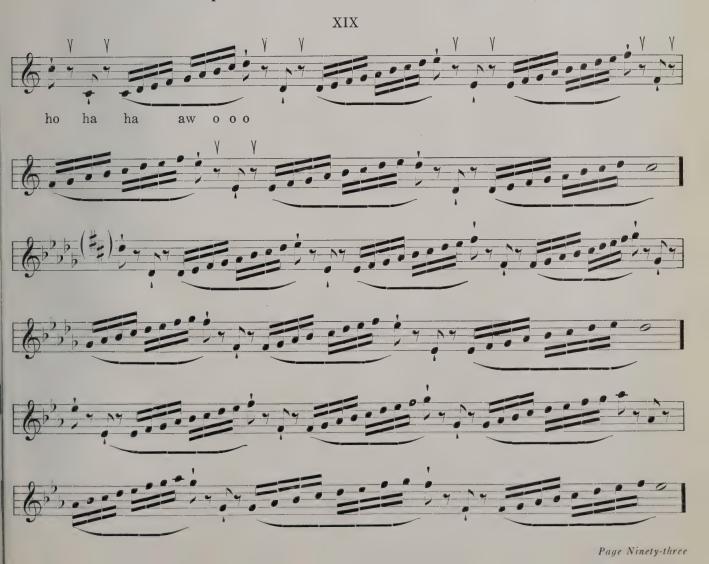


# Developing

EX. XVIII



# For Independent Attack and Flexibility



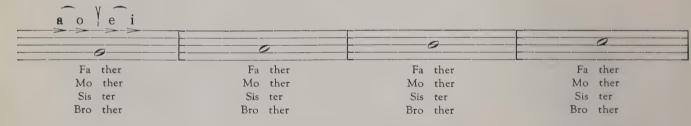
### VOWELS

Vowel practice should not be commenced until the muscular system is well set, and the tone fairly well reflected in the head, with relaxed throat.

A few words are sufficient to lay the foundation for *Diction*, which can only be perfected by the pure tone, resulting from proper vocal muscular control.

The purer the tone, the more easily words can be formed.

We have found the following vowels and words quite sufficient, on which to build more advanced *Diction*.



The vowels should be practiced on every tone for quite a time before using the words.

Use a whole breath for each word. Mark and diminish well before using the second half of breath.

#### STACCATO

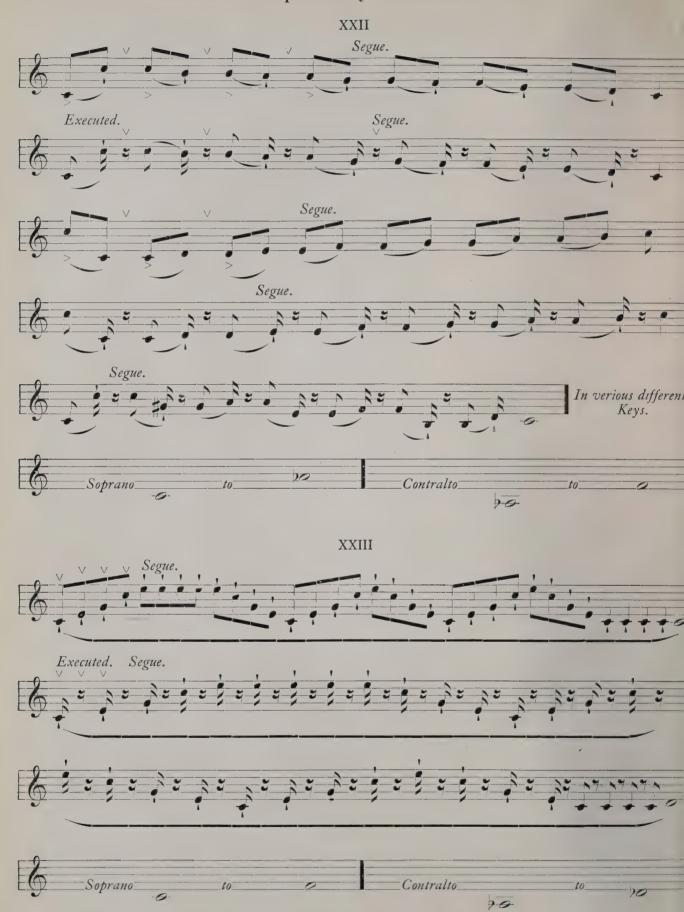
The staccato should be made by a manipulation of — the abdominal muscle on the diaphragm.

It should be practiced slowly at first, and a short catch breath taken between each note, gradually increasing the tempo until the greatest speed possible is attained.

Even the most rapid staccato can and should be sung in this manner, with breath inaudible.

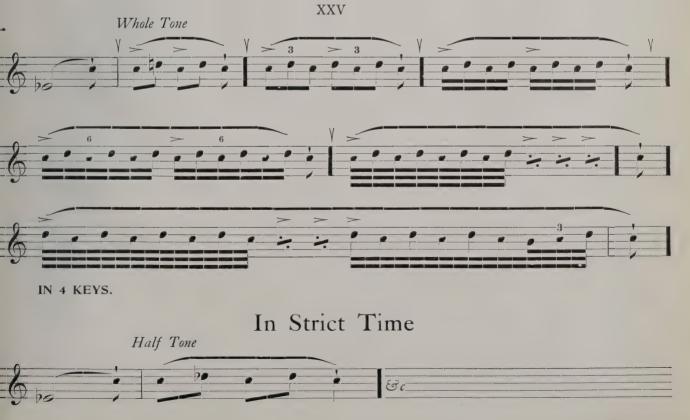
The panting of a dog after running gives a good idea of how the abdominal muscle should work in staccato. At first it is voluntary, afterwards becoming involuntary.

### Preparatory Staccato





## Preparatory Trill Exercises



### TRILL

Many sopranos have a natural trill, while many think they can never trill.

All can learn it, though it should not be studied until the preparatory trill exercises have been practiced for quite a time.

A too early development of it will interfere with the muscular setting.

Those who have a natural trill will find by practising the preparatory trill Ex, a safeguard against its becoming a tremolo.

Great care should be taken that the two notes of the trill are a whole or half tone apart, as the case may be, and distinctly heard.

Usually these Exercises are sufficient to ultimately produce the trill.

#### COLORATURE

By this is meant the flexible contortion of the vocal muscular system, which when combined with the correct reflection of the overtones in the resonance chamber, is capable of all kinds of vocal gymnastics or executions.

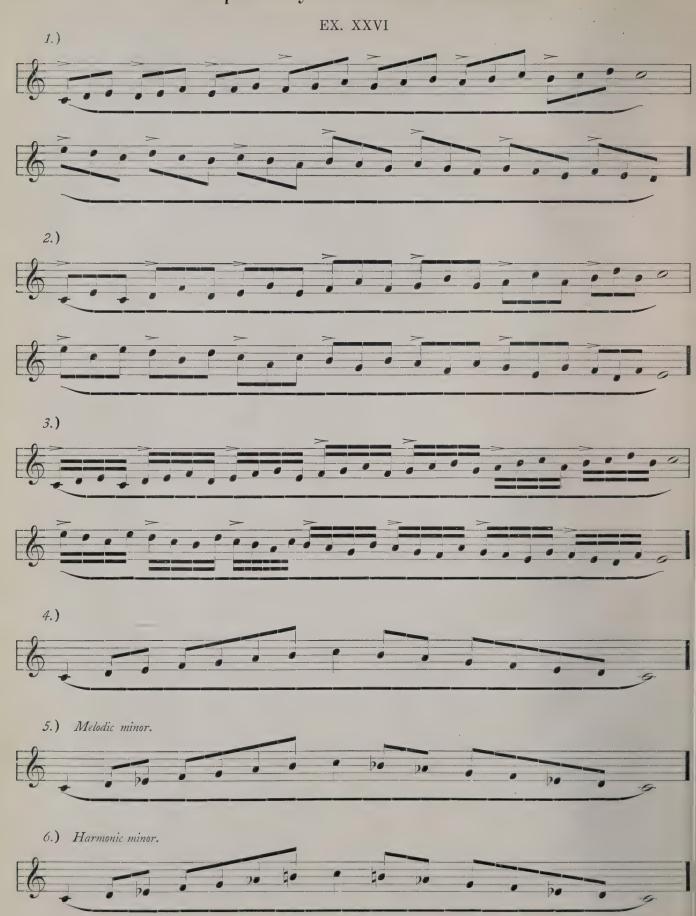
Colorature should always be practiced with a medium tone of voice, to keep the muscles limber and flexible.

The following exercises are intended as preparatory only, and if practiced carefully with medium tempo, will lay the foundation for the many exercises and cadences written for this particular branch of singing.

It should also be practiced by those not intending to develop coloratura, even by dramatic voices, as they are of great advantage for limbering the Muscular System, for the more the muscles are made flexible, the greater the expansion of tone necessary for dramatic work.

Practice these exercises in as many keys as are suitable to the individual voice.

### Preparatory Colorature Exercises



Page One Hundred



The above in different Keys suitable to Voice.



Lu groteful remembrance for his remarkable Service, anoch best of mishes! New York. 1952. Sungarra



New York, April 18, 1922.

Mr. Albert Ruff, Carnegie Hall, New York City.

Dear Mr. Ruff:

It is not easy to adequately express in words my admiration for your remarkable knowledge, your never-failing patience and genuine interest in these last months of my season at the Metropolitan. You deserve the entire credit for the most successful and happiest year of my artistic endeavor in that institution.

Through the many qualities of your divining gift, I shall be able to progress towards an ideal in my art with renewed courage, and I pray God may spare you not only towards that, but as well to be the benefactor of those as needful and appreciative as I am of you.

Will you accept this little remembrance with deepest gratitude on the part of

Singana

### A Few Endorsements

#### Hotel La Salle

Chiengo Doc 24 1912

A E Ruff, Eeq Kimbell Guilding, Chicago,

My Doar friend:

It gives so great measure to write you again efter some years, and bear furthur witness to the great benefit I have derived from your instruction.

It is nearly treaty five years since I left commercial life in chicage, and took un operatic rox, during which there have use placed incomment on I cheerfully attribute my success in hewing rithmicod that serve tent to your excellent instruction at the object of my cereer. It is also a closdure for set to tall every body that, whenever I as in Chicago, I go to you every day, I consulte, and have you go ever every part of the valce, it combs fortify no set for most or your of hard more.

dishing you continued success, which you richly destro, I remain

Your Sincara Priend

Engene Troles

Prof. Albert E. Ruff.

My Dear Sir:

Referring to a number of persons whom I have sent to your studio for voice culture, I am pleased to say, that without a single exception, they have been delighted beyond expressions with the benefits they have received, by your scientific methods of vocal training.

Trusting that this testimonial will be considered as an endorsement of scientific methods, as well as a personal tribute, I remain very respectfully yours,

E. P. Murdoch, A.M. and M.D.

U. S. Examining Surgeon and late Lecturer on the Physiology and Hygiene of the Human Voice in Song and Speech.

March 1, 1912.

To Whom it May Concern:

This is to certify that up to my twenty-sixth year, my voice had never changed from its boy's voice. I had spent a great deal of money with doctors, who tried for several years to give me a man's voice, but they could do nothing for me.

On the urgent solicitation of my mother, who thought singing might at least strengthen my voice, I went to Mr. Albert E. Ruff, who told me he would not develop my falsetto voice, but thought he could change it into a natural voice.

I am pleased to certify that in three months Mr. Ruff had entirely changed my voice, and that it is now a complete man's voice, with no inclination to go over to falsetto, to which two years of trial will now testify.

W. B. CARPENTER, 310 Cambell Avenue, Chicago, Feb. 20, 1897 During his study at the Leipzig Conservatory Mr. Raff dsi availed himself of the very great advantage of studying the physiology and anatomy of the throat under the very distinguished author and teacher, Prof. Dr. C. L. Merkel, of the Leipzig University. From this master he first laid his foundation for Voice Culture and restoration.

CHICAGO INDICATOR,
March 19, 1887

Surely Miss Nella Bergen has discovered an elixir somewhere, for when I last heard her sing, I noted with regret that her voice had lost all its freshness, and it seemed an effort for her to sing above a G note and there were other signs that she had lost her voice. Judge my surprise, therefor, upon hearing her soar up to high C's with the greatest ease, and her middle and lower voice was equally improved.

That Mr. Ruff is able to restore freshness to an overworked voice, is certainly a great boon to all artists appearing before the public.

New York American Musician, Sept., 1909.

Dear Mr. Ruff.

I am so happy to tell you, my voice is getting better every

aay

I can't tell you, Mr. Ruff, how grateful I am to you, for your valuable instructions and help you gave me in such a short time.

Most cordially yours,
MAUD LAMBERT,
New York, May, 1911.

My Dear Mr. Ruff.

For several years I struggled with a condition of the throat described by physicians as partial paralysis of one of the vocal cords.

I despaired of ever having the use of my voice again. But after a season of painstaking work on your part, I now have my voice nearly restored to its normal condition. Instead of being painful, it is now a pleasure to sing.

Faithfully your friend and pupil,

O. F. Dodge, Chicago, Sept. 1, 1908. H. HOLBROOK CURTIS, M. D.
TEL 175 MAD. SQ. 118 MADISON AVENUE
NOURS 9A M TO 12 NOON DAILY BY APPOINTMENT

Dear Mr. Ruff.

As it has now been some time since the completion of the work I did with you, and, feeling that you would like to know something of its results, I am taking this opportunity to assure you of its lasting benefit.

As you doubtless remember, when I came to you it was with great difficulty that I could sing at all, and my throat was in a dreadful shape. I am pleased to say that at the present time I am able to do any amount of singing, without resultant fatigue of the throat.

I am glad to be numbered among those who call them-

selves your pupils.

Very sincerely,
WALTER A. STULTS,
Teacher of Voice, Northwestern
University, Evanston, Ill., Sept.
28, 1908.

My Dear Mr. Ruff.

I look forward with great pleasure for a copy of your book, and I wish I had it last week, so I could refer to it, in a lecture I delivered to over one hundred Laryngologists, at a special meeting at the N. Y. Academy of Medicine.

During the lecture, I spoke of Vocal Nodes, their causes, and treatment, both operative and vocalizations, and at this I took the liberty to mention what good work Mr. Albert E. Ruff was doing.

I mentioned the case of Mr. Wade that stock broker I referred to you for Laryngitis, and how you benefited him by proper vocalizations, although he had no intentions of taking

I am very cordially yours,
Dr. I. HENRY ALEXANDER,
Nose, Throat, and Ear Specialist
New York, N. Y.
365 West End Ave.

December, 1926.

singing lessons.

### A Few Endorsements

My Dear Mr. Ruff.

Despite this cold, I have practiced each day the excellent exercises you gave me, and I am convinced that had I not done so, I would not have been able to appear this week.

The exercises are wonderful, especially for professionals, who must sing whether in voice or

not.

Thanking you for htis help, believe me, yours most gratefully,

KATE CONDON, January 19, 1913.

My Dear Mr. Ruff.

I felt so discouraged when I came to you with weakness in the middle tones, a tremulo, and a break in register.

Your method certainly is wonderful, and so simple and natural. It has strengthened, steadied, and made my voice even

throughout.

One little thing more, that is a big help to me, is your breathing exercises. They are splendid.

Cordially yours, VIOLA GILLETTE, Jan. 4, 1913.

My Dear Mr. Ruff.

It gives me great pleasure to add my testimonial to the many that have been sent to you.

Your instructions for the past few weeks, has been of the greatest benefit to me.

Yours very sincerely, GEORGE MACFARLANE, Gilbert and Sullivan All-Star Co., January 5, 1913.

My Dear Albert Ruff.

There is no method of restoration so complete as yours, it can work miracles if given a chance.

I have recommended you as the best and most skilled voice builder in Chicago.

Sincerely,
Amy Leslie,
Chicago, Aug. 5, 1919.

Prof. Albert Ruff. Carnegie Building, New York, N. Y.

You did wonders with Miss Harsin in removing those Nodules from her vocal cords, without a loss of a single day at her work, and it is very fortunate for her that you could remove them with exercises instead of her having an operation.

JAY F. PITTS, D.D.S.,M.D. Nose, Ear, Throat and Gral Surgery, Schiller Bldg., Chicago, Aug. 18, 1919. Dear Mr. Ruff.

After reading your book and studying with you for two years or more, I wish to add one more testimonial to your already long list, and state that I know there is no greater living scientific Voice Builder and Restorer, for you are simply a wizard in getting results—as I have seen such marvelous accomplishment in restoration work by you.

Edna Marione-Springer, President N. Y. Federation of

Music Clubs.

To My Friend Mr. Ruff:

I alone can appreciate your wonderful method of restoring and placing my vocal cords back to normal. For, as you have removed my nodula, I can again sing with ease before the public.

Sincerely, Edgar L. Kiefer, New York, Oct., 1921.

Miss Farrar had appeared in the far west, from which quarter had come reports of improvement in her voice, that she justified last night.

Her air of "Vissi d'Arte" was applauded. She gave it in a more flowing, quiet style, and with apparent absence of ef-

ort.

New York Times, Nov. 19, 1921.

Geraldine Farrar is undeniably singing better than she did last season. She is phrasing better, singing with more discretion, is not forcing her voice, she is on the right road.

N. Y. JOURNAL, Dec., 1921.

It is said that Miss Farrar has been studying very earnestly for months past. The report is undoubtedly true, for she is singing better this season than last. She is not trying to produce volume, but quality, and with good results.

New York Herald, Dec. 23, 1921.

Miss Farrar's voice sounded fresher, and her singing was more spontaneous than usual.

N. Y. JOURNAL, Nov. 19, 1921.

She sang with a tonal timbre that recalls her earliest or rather her palmiest days of triumph.

CHICAGO AMERICAN

May 25, 1922.

She has decidedly improved her singing. Indeed she has been singing much more beautifully (tho' by no means so loudly) all winter than for several seasons past.

N. Y. HERALD

March 9, 1922.

We must confess to an unusal amount of curiosity where Miss Farrar's singing was concerned, for it has been patent to all the world for several years that the once lovely voice was losing its velvety beauty, and we had been told that a certain wizard had, by the skill which is his, taken her in hand and restored those golden tones to their pristine beauty.

Let it be here recorded that the statement was a correct one, for not in ten years has Farrar's voice been as charming as it was Sunday afternoon, and if she continues to improve as she already has, she will be good for many wonderful years.

MILWAUKEE FREE TRADE, October 9, 1921.

When this writer heard her in New York last January, he was amazed at the change, for she had begun to sing with pure tone, and did not use any of the etreme vocal methods she formerly employed.

He was told that the singer had discovered a teacher who was actually remaking her voice, and truly it was easy to

believe.

CHICAGO MUSIC NEWS May, 1922.

To Mr. Ruff with profound gratitude for his wonderful help. Most affectionately,

Anna Fitzin, New York, Sept., 1922.

To Mr. Albert Ruff:

We are living in the age of knowledge and science—up till now all arts, save wocal music has been founded on some agreed scientific basis — from now on, we also shall have it—I therefor call Mr. Ruff "A Pioneer." May he live long for his own, and humanity's sake!

EDWARD LANKOW, June, 1924.

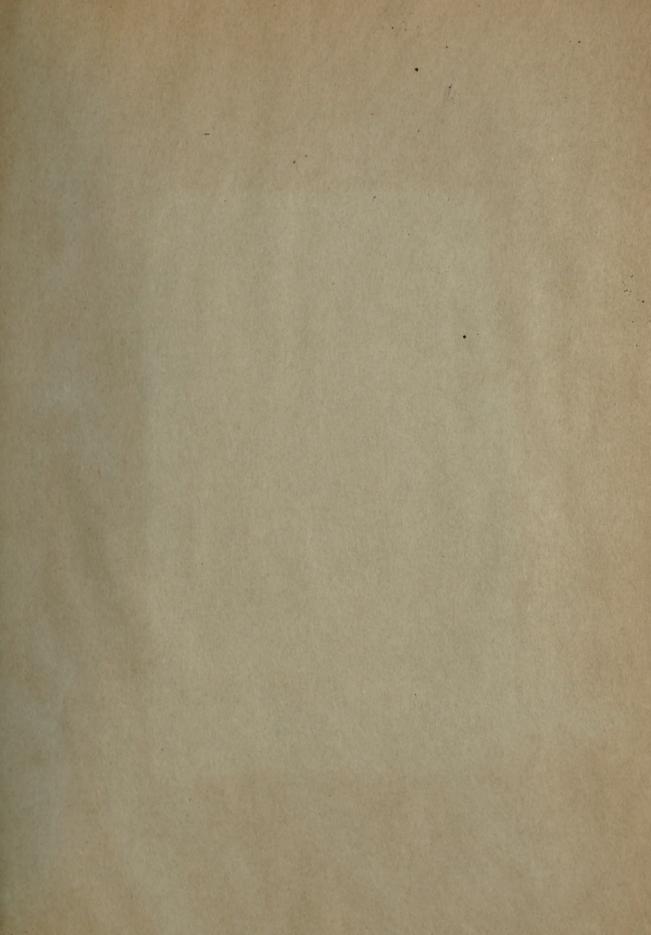
Dear Mr. Ruff.

I am pleased to hear that you are to publish your book on the voice.

As I have had the privilege of seeing your results, it gives me great pleasure to endorse the methods you advocate.

I am cordially yours, L. D. Alexander, M.D. Nose, Throat and Ear. 30 West 57th St., New York, Dec. 26, 1925.





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# Music Department

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